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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/214,277    03/01/99    KAWADA

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EXAMINER
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BALASUBRAMANIAN, V

ART UNIT	PAPER NUMBER
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1624

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DATE MAILED: 09/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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# Office Action Summary

Application No.  
09/214,277

Applicant(s)  
KAWADA ET AL.

Examiner  
Venkataraman Balasubramanian

Art Unit  
1624



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jul 6, 2001
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 28-52 is/are pending in the application.
- 4a) Of the above, claim(s) 28-33, 50, and 51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 34-49 and 52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 20) ☒ Other: CASONLINE Sample Search

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### **DETAILED ACTION**

Applicants' response, which included cancellation of claims 1-27 and addition of new claims 28-54, to restriction requirement, filed on 7/6/2001, is made of record. Election of Group I, claims 34-41, 45-49 and 52 (originally claims 7-14, 18-22 and 25) along with a process claim 15 (now claim 42), in paper # 9 with traverse is acknowledged. Claims 28-33 and 50-51 drawn to non-elected Group III is withdrawn from further consideration.

Applicants' traversal of restriction requirement, which relates to joining of group I and the process group II is considered but is not persuasive for reasons of record. The following also apply.

As noted in the previous office action, MPEP permits one product, one process, one composition and one method of use in a single invention. Applicants' have elected a single process claim 15 (now 42). In addition, applicants may elect a method treating a specific disease. Restriction is proper where there is lack of unity of the invention and such is not affected by the manner of claiming- i.e. In separate claims or within a single claim. Note 37 CFR 1-141 (a) which states two or more independent distinct inventions may not be claimed in one application. One appearing in one claim or more than one claim. This is also consistent with the PCT rule 13.3 for PCT cases entering the national stage. See also Official Gazette, 1134 OG 194, Jan 7, 1992, which clearly shows US position as regards to PCT cases.

Hence the restriction is proper and is maintained. The restriction is made FINAL.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 34-49 and 52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Following reasons apply. Any claim not specifically rejected is rejected as being dependent on a rejected claim.

1. Claim 34 is indefinite as it recites in last two lines "methoxy, pharmaceutically acceptable salt, hydrate ". Note an "or " is missing before " the pharmaceutically acceptable salt " and after it. Note these limitations should be in alternates.
2. The same reason # 1 applies to composition claims and other dependent claims.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 34-36 and 42-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Goulding US 5,560,864.

Goulding teaches several liquid crystalline materials which include terphenyl compounds of instant claims for use as liquid crystal display. See Col. 1 and col.2 particularly formula I and note the definition of various variable groups. Note the MG<sup>2</sup>

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definition includes terphenyl compounds and the substituents on this ring is also taught. See col. 2-4 See col. 7-8 and col. 9-10 for some terphenyl compounds. See col. 13 through 34 for various schemes for making which include the process claimed in instant claim 42. See examples shown on col. 36 through 44 particularly see table I.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claims 34-36 and 45-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Kam Ming Chan et al. US 4,594,465.

Kam Ming Chan et al. teaches several liquid crystalline materials which include terphenyl compounds of instant claims for use as liquid crystal display. See Col. 1 and col.2 particularly formula I and note the definition of various variable groups. Note the A ring definition includes terphenyl compounds and the substituents on terphenyl ring is also taught. See col. 2--8 for details of terphenyl compounds. See Fig 1-13 for various terphenyl compounds and schemes for making. See examples shown on col.9 through 25 particularly see Table I through 7 for various compounds made.

Claims 34-36 and 45-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurihara et al. US 5,494,605

Kurihara et al. teaches several p-terphenyl derivatives as liquid crystalline materials, which include terphenyl compounds of instant claims for use as liquid crystal display. See Col. 1 and col.2 particularly formula I and note the definition of various

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variable groups. See col. 2--8 for details of terphenyl compounds. See examples 1-5 for compounds made.

Claims 34-36 and 42-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Reiffenrath et al. US 5,487,845.

Reiffenrath et al teaches several liquid crystalline materials which include terphenyl compounds of instant claims for use as liquid crystal display. See Col. 1 and col.2 particularly formula I and note the definition of various variable groups. Note these definitions include terphenyl compounds with substituents on this ring including those claimed in the instant claims. See col. 2--8 for details of the compounds and col. 9-22 for various schemes for making which include the process claimed in instant claim 42. See examples 1-216 shown on col. 24 through 59 for various compounds made.

Claims 34-36 and 42-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. US 5,417,885

Suzuki et al teaches several terphenyl compounds as liquid crystalline materials, which include terphenyl compounds of instant claims for use as liquid crystal display. See Col. 4, formula I, II, III and note the definition of various variable groups. Note these definitions include terphenyl compounds with substituents on this ring including those claimed in the instant claims. See col. 5--7 for details of the compounds and col. 8-11 for various schemes for making which include the process claimed in instant claim 42. See examples 1-16 shown on col. 11 through 27 for various compounds made.

Claims 34-36 and 42-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Gray et al. GB 2,227,742

Gray et al. teaches several liquid crystalline materials which include terphenyl compounds of instant claims for use as liquid crystal display. See page 2 particularly formula I and note the definition of various variable groups on the terphenyl compounds which include those claimed in the instant claims. See Fig 1 through Fig 8 for various schemes for making these compounds which include the process of instant claim 42. See page 3 -7 for preferred embodiments and method of use. See page 8 through page 22 for various compounds made.

Claims 34-36 and 45-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Raynes et al. GB 2,227,742

Raynes et al. teaches several terphenyl liquid crystalline materials which include terphenyl compounds of instant claims for use as liquid crystal display. See page 2 particularly formula I and note the definition of various variable groups on the terphenyl compounds which include those claimed in the instant claims. See Fig 1 for a process scheme for making these compounds, which include the process of instant claim 42. See pages 11-17 for examples of various compounds made.

Claims 34-36 and 45-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Coates et al. GB 2,240,778

Coates et al. teaches several fluorinated liquid crystalline materials which include compounds of instant claims for use as liquid crystal display. See page 1 particularly formula I and note the definition of various variable groups on the terphenyl compounds which include those claimed in the instant claims. See examples shown on pages 11-13 for various compounds made.

Claims 34-36 and 45-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Gray et al. GB 2,200,912

Gray et al. teaches several terphenyl liquid crystalline materials which include terphenyl compounds of instant claims for use as liquid crystal display. See page 1 particularly formula I and note the definition of various variable groups on the terphenyl compounds which include those claimed in the instant claims. See page 3 -14 for preferred embodiments and method of use. See page 15 through page 20 for various compounds made.

Claims 34-36 and 42-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Gray et al. GB 2,227,742

Gray et al. teaches several liquid crystalline materials which include terphenyl compounds of instant claims for use as liquid crystal display. See page 2 particularly formula I and note the definition of various variable groups on the terphenyl compounds which include those claimed in the instant claims. See Fig 1 through Fig 8 for various schemes for making these compounds which include the process of instant claim 42. See page 3 -7 for preferred embodiments and method of use. See page 8 through page 22 for various compounds made.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



Claims 34-36 and 40-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goulding US 5,560,864.

Teachings of the above 102 rejection is incorporated herein. As noted above, Goulding teaches several terphenyl compounds for use as liquid crystalline material.

Instant claims require variously substituted X-Y groups on the terphenyl.

However Goulding teaches the equivalency of the exemplified substituents with that defined in the definition of various variable groups on terphenyl ring. See Col. 1 and col.2 particularly formula I and note the definition of various variable groups. Thus it would have been obvious to one having ordinary skill in the art at the time of the invention was made to make compounds variously substituted in terphenyl ring and the as permitted by the reference and expect resulting compounds (instant compounds) to possess the uses taught by the art in view of the equivalency teaching outline above.

Similar equivalency teaching is taught in all the above 102 rejections. And hence instant claims are also rejected under 103(a) over these prior art.

Applicants should note that a large number of prior art citations were found in a sample search using CASONLINE and East search, in addition to those cited in the International Search Report. Examiner has applied only few of these prior art. Applicants are asked, in response to this action to clearly exclude prior art compound and indicate clearly the scope of the instant invention. Furthermore, the references cited in the International Search Report are not available to the examiner for consideration. Copies of these references are needed.

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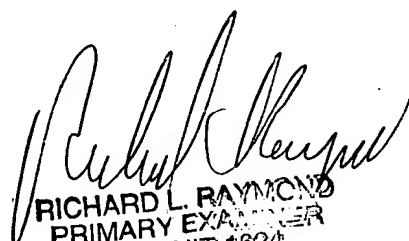
Any inquiry concerning this communication from the examiner should be addressed to Venkataraman Balasubramanian (Bala) whose telephone number is (703) 305-1674. The examiner can normally be reached on Monday through Thursday from 8.00 AM to 5.30 PM.

The fax phone number for the organization where this application or proceeding is assigned (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

V/B  
V. Balasubramanian (Bala)

9/21/2001

  
RICHARD L. RAYMOND  
PRIMARY EXAMINER  
ART UNIT 1624